

**REMARKS**

This is a full and timely response to the outstanding final Office Action mailed October 31, 2006. Reconsideration and allowance of the application and pending claims are respectfully requested.

**I. Claim Rejections - 35 U.S.C. § 103(a)**

As has been acknowledged by the Court of Appeals for the Federal Circuit, the U.S. Patent and Trademark Office ("USPTO") has the burden under section 103 to establish a *prima facie* case of obviousness by showing some objective teaching in the prior art or generally available knowledge of one of ordinary skill in the art that would lead that individual to the claimed invention. See *In re Fine*, 837 F.2d 1071, 1074, 5 U.S.P.Q. 2d 1596, 1598 (Fed. Cir. 1988). The Manual of Patent Examining Procedure (MPEP) section 2143 discusses the requirements of a *prima facie* case for obviousness. That section provides as follows:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure.

In the present case, the prior art does not teach or suggest all of the claim limitations, and there is no suggestion or motivation in the prior art to modify the references to include those limitations.

**A. Rejection of Claims 1, 3-5, 7, 9-13, 21, 22, 24, and 25**

Claims 1, 3-5, 7, 9-13, 21, 22, 24, and 25 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over *Perez, et al.* ("Perez," U.S. Pat. No. 6,934,162) in view of *Kimer* (U.S. Pat. No. 7,016,197)). Applicant respectfully traverses this rejection.

**1. The Perez Disclosure**

Perez discloses a circuit board mounting method. According to the method, a motherboard 14 is mounted within a computer chassis 10 by seating the motherboard on bosses 36 of the chassis with upper end portions 52 of the bosses passing through mounting holes 34 of the motherboard. *Perez*, column 3, lines 44-47. Next, the motherboard is slid forward along the bosses to secure the motherboard in place. *Perez*, column 3, lines 47-53.

Perez further discloses a retaining bracket 42 that mounts to the computer chassis after the motherboard is installed in the manner described above. *Perez*, column 4, lines 2-8. The retaining bracket abuts the motherboard to retain it in place, but does not actually connect to the motherboard. *Perez*, column 4, lines 8-13. As described by Perez:

With the retaining bracket 42 in this installed orientation, an inner or front side portion of the bracket defines an abutment which prevents the

substrate body 26 from being rearwardly shifted in a manner unlocking it from and permitting it to be lifted off of the chassis bosses 36. Additionally, suitable openings 33a are formed in the bracket 42 that, with the bracket 42 in its installed orientation, complementarily receive rear portions of the various input/output devices as illustrated in FIG. FIG. 7.

When it is desired to remove the motherboard 14 from the chassis 10, the retaining bracket 42 is simply pivoted outwardly and removed from the chassis 10, thereby permitting the motherboard 14 to be rearwardly shifted relative to and lifted off the bosses 36 to quickly and easily remove the motherboard 14 from the computer 12.

*Perez*, column 4, lines 17-31.

## **2. The Kirner Disclosure**

Kirner discloses, among other things, a circuit board 3 that includes an integral "plug socket" 2. *Kirner*, column 3, lines 29-31; column 4, lines 32-38. The plug socket comprises multiple plug chambers 52-55 and "guiding surfaces" 57 and 58 that surround the plug chambers. *Kirner*, column 4, lines 38-42.

## **3. Applicant's Claims**

Applicant's claims describe circuit board modules, computers, and methods that implicate a circuit board that is integrally connected to an external connector panel. By way of example, claim 1 provides as follows (emphasis added):

1. A circuit board module, comprising:  
a circuit board that includes a processor and memory; and  
an external connector panel that provides user access to connectors that are mounted to the circuit board when the module is installed in a host computer, *wherein the connector panel and the circuit board are connected together so as to form a single, integrated unit that can be installed in a computer*, the connector panel comprising connection elements that are configured to directly connect the connector panel to a computer chassis.

In the Office Action, it is acknowledged that Perez does not teach or suggest a connector panel and the circuit board that are "connected together so as to form a single, integrated unit that can be installed in a computer". In view of that shortcoming, the Office Action relies upon the Kirner reference, which is alleged to teach a connector panel connected to a circuit board so as to form a single, integrated unit. The Office Action argues that, in view of the alleged teaching, it would have been obvious to modify Perez's circuit board and mounting method to include a connector panel and circuit board that are connected together so as to form a single, integrated unit. Applicant traverses on both counts.

Contrary to that argued in the Office Action, Kirner does not teach a connector panel and circuit board that are connected together so as to form a single, integrated unit. Instead, Kirner simply teaches a circuit board 3 that includes a connector in the form of a "plug socket" 2. Ostensibly, the Office Action considers the "guiding surface" 57 of the plug socket to comprise a "connector panel" as recited in Applicant's claims. The falseness of that position becomes clear, however, when one reviews the Kirner disclosure and Applicant's specification. Specifically, although Kirner may be said to

teach a "connector panel" within the meaning of the term as defined by Applicant's specification, that connector panel is Kirner's "rear wall 9" of the "cover component 1" (i.e., Kirner's chassis), *not* the guiding surface 57 of the plug socket 2. As is clear from Figure 1, the "guiding surface 57" is merely the front surface of Kirner's plug socket and is no more a "connector panel" than are the front surfaces of Perez's input/output connectors 33 (see Perez, Figure 4). In other words, the "guiding surface 57" of Kirner's plug socket merely comprises part of the connector that is mounted to Kirner's motherboard and is by no means a "connector panel" such as that illustrated in Applicant's Figure 3, i.e., a panel of a computer that comprises the various I/O connectors of the computer. Given that Kirner's guiding surface 57 does not legitimately comprise a connector panel and further given that Kirner's disclosed connector panel (i.e., "rear wall 9") does not connect with Kirner's motherboard to form an integrated unit, Applicant submits that Kirner fails to teach a connector panel and the circuit board are connected together so as to form a single, integrated unit.

Even if one were to assume for purposes of argument that Kirner's guiding surface does comprise a connector panel for Kirner's plug sockets, such a "teaching" would still not motivate a person having ordinary skill in the art to attach Perez's retaining bracket 42 to Perez's motherboard 14. First, unlike Kirner's guiding surface 57, Perez's retaining bracket 42 affects multiple, distinct connectors 33 that are mounted to Perez's motherboard. Second, Perez intentionally designed the retaining bracket as a separate component that enables the "circuit board mounting method" disclosed and claimed by Perez. As identified above, Perez's retaining bracket acts as an "abutment which prevents the substrate body 26 from being rearwardly shifted in a manner unlocking it

from and permitting it to be lifted off of the chassis bosses 36." *Perez*, column 4, lines 17-21. To modify *Perez*'s retaining bracket to comprise a mere surface mounted to *Perez*'s connectors 33 would be to disable that intended functionality. Applicant notes that if a reference would be "rendered inoperable for its intended purpose" when it is modified for use as prior art, then the reference "teaches away" and should not be used. *In re Gordon*, 733 F.2d 900, 221 U.S.P.Q. 1125, 1127 (Fed. Cir. 1984).

In view of the foregoing, Applicant respectfully submits that the combination of *Perez* and *Kimer* does not properly render Applicant's claims obvious. Applicant therefore requests that the rejections be withdrawn.

**B. Rejection of Claims 14-18 and 20**

Claims 14-18, and 20 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over *Perez* in view of *Kimer* and *Liu, et al* ("*Liu*," U.S. Pat. No. 6,000,767). Applicant respectfully traverses this rejection.

As is identified above, *Perez* and *Kimer* do not teach several aspects of Applicant's claims. In that *Liu* does not remedy the deficiencies of the *Perez* and *Kimer* references, Applicant respectfully submits that claims 14-18, and 20 are allowable over the *Perez/Kimer/Liu* combination for at least the same reasons that claim 14 is allowable over *Perez/Kimer*.


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CONCLUSION

Applicant respectfully submits that Applicant's pending claims are in condition for allowance. Favorable reconsideration and allowance of the present application and all pending claims are hereby courteously requested. If, in the opinion of the Examiner, a telephonic conference would expedite the examination of this matter, the Examiner is invited to call the undersigned attorney at (770) 933-9500.

Respectfully submitted,

  
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